

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 5, 6, 10, 11, 15, 16 and 20-22 in accordance with the following:

1. (CURRENTLY AMENDED) An actuator of a hard disk drive, having a base plate and a voice coil motor, to move a magnetic head to record and reproduce data with respect to a disk to a predetermined position on the disk, comprising:

a suspension supporting a slider where the magnetic head is mounted;

an arm included on the base plate of the hard disk drive to pivot, the arm including the suspension at a leading end portion of the arm and a coil of the voice coil motor coupled to a rear end portion of the arm; and

a set of magnets arranged to be separated a predetermined distance from the coil,

wherein an area between the magnets is an area of the coil having an effective portion and an area outside of the magnets is an area of the coil having a non-effective portion and,

the coil is coupled to the rear end portion of the arm by an outer mold formed to encompass an outer circumference of the coil on a distal end relative to a pivot hole of the arm,

an inner mold is formed inside the coil, and

a connection mold connecting the outer mold and the inner mold is formed on at least part of a surface of the area of the coil having the non-effective portion and not on the area of the coil having the effective portion,

wherein the connection mold is only formed on the outer circumference of the coil.

2. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 1, wherein the connection mold is formed at an entire surface of the area of the coil having the non-effective portion.

3. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 1, wherein the connection mold is formed in a middle portion along a lengthwise direction of the area of the coil

having the non-effective portion.

4. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 1, wherein the connection mold is formed at at least two positions along a lengthwise direction of the area of the coil having the non-effective portion.

5. (CURRENTLY AMENDED) An actuator of a hard disk drive, having a base plate and a voice coil motor, to move a magnetic head to record and reproduce data with respect to a disk to a predetermined position on the disk, comprising:

a suspension supporting a slider where the magnetic head is mounted; and

an arm included on the base plate of the hard disk drive to pivot, the arm including the suspension at a leading end portion of the arm and a coil of the voice coil motor coupled to a rear end portion of the arm; and

a set of magnets arranged to be separated a predetermined distance from the coil, wherein an area between the magnets is an area of the coil having an effective portion and an area outside of the magnets is an area of the coil having a non-effective portion,

the coil is coupled to the rear end portion of the arm by an outer mold formed to encompass an outer circumference of the coil on a distal end relative to a pivot hole of the arm,

an inner mold is formed inside the coil, and

a connection mold connecting the outer mold and the inner mold is formed at least part of a surface of the area of the coil having the non-effective portion and not on the area of the coil having the effective portion and,

the connection mold is formed on an upper surface and a lower surface of the area of the coil having the non-effective portion,

wherein the connection mold is only formed on the outer circumference of the coil.

6. (CURRENTLY AMENDED) A hard disk drive that reproduces data stored in a disk or records data on the disk by using a magnetic head, the hard disk drive comprising:

an actuator including an arm included on a base plate of the hard disk drive to pivot and a suspension at a leading end portion of the arm and supporting a slider on which the magnetic head is mounted; and

a voice coil motor including a coil coupled to a rear end portion of the arm and a magnet arranged to be separated a predetermined distance from the coil and to face at least one of upper and lower surfaces of the coil, and pivoting the actuator in a predetermined direction by

the interaction between current flowing through the coil and a magnetic field formed by the magnet; and

a set of magnets arranged to be separated a predetermined distance from the coil,

wherein an area between the magnets is an area of the coil having an effective portion and an area outside of the magnets is an area of the coil having a non-effective portion and,

the coil is coupled to the rear end portion of the arm by an outer mold formed to encompass an outer circumference of the coil on a distal end relative to a pivot hole of the arm,

an inner mold is formed inside the coil, and

a connection mold connecting the outer mold and the inner mold is formed on at least part of a surface of the area of the coil having the non-effective portion and not on the area of the coil having the effective portion,

wherein the connection mold is only formed on the outer circumference of the coil.

7. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 6, wherein the connection mold is formed at an entire surface of the area of the coil having the non-effective portion.

8. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 6, wherein the connection mold is formed in a middle portion along a lengthwise direction of the area of the coil having the non-effective portion.

9. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 6, wherein the connection mold is formed at at least two positions along a lengthwise direction of the area of the coil having the non-effective portion.

10. (CURRENTLY AMENDED) A hard disk drive that reproduces data stored in a disk or records data on the disk by using a magnetic head, the hard disk drive comprising:

an actuator including an arm included on a base plate of the hard disk drive to pivot and a suspension at a leading end portion of the arm and supporting a slider on which the magnetic head is mounted;

a voice coil motor including a coil coupled to a rear end portion of the arm and a magnet arranged to be separated a predetermined distance from the coil and to face at least one of upper and lower surfaces of the coil, and pivoting the actuator in a predetermined direction by the interaction between current flowing through the coil and a magnetic field formed by the

magnet; and

a set of magnets arranged to be separated a predetermined distance from the coil,
wherein an area between the magnets is an area of the coil having an effective portion
and an area outside of the magnets is an area of the coil having a non-effective portion,
the coil is coupled to the rear end portion of the arm by an outer mold formed to
encompass an outer circumference of the coil on a distal end relative to a pivot hole of the arm,
an inner mold is formed inside the coil, and
a connection mold connecting the outer mold and the inner mold is formed on at least
part of a surface of the area of the coil having the non-effective portion and not on the area of
the coil having the effective portion, the connection mold is formed on an upper surface and a
lower surface of the area of the coil having the non-effective portion, and is only formed on the
outer circumference of the coil.

11. (CURRENTLY AMENDED) A suspended actuator of a hard disk drive, having a base plate, that moves a magnetic head to record and reproduce data on a disk to a predetermined position on the disk, comprising:

a coil;
a pivoting arm on the base plate of the hard disk drive; and
magnets positioned above and below a part of an area of the coil having an effective portion during operation of the suspended actuator,
wherein the coil, including the area of the coil having the effective portion and an area of the coil having a non-effective portion outside of the area of the coil having the effective portion of the magnets, carrying current in two directions and coupled to the pivoting arm by an outer mold encompassing an outer circumference of the coil,
an inner mold inside the coil, and
a connection mold, connecting the outer and inner molds, at a surface of the area of the coil having the non-effective portion and not at a surface of the area of the coil having the effective portion,
wherein the connection mold is only formed on the outer circumference of the coil on a distal end relative to a pivot hole of the arm.

12. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 11, wherein the connection mold is at an entire surface of the area of the coil having the non-effective portion.

13. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 11, wherein the connection mold is formed in a middle portion along a lengthwise direction of the area of the coil having the non-effective portion.

14. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 11, wherein the connection mold is formed at at least two positions along a lengthwise direction of the area of the coil having the non-effective portion.

15. (CURRENTLY AMENDED) A suspended actuator of a hard disk drive, having a base plate, that moves a magnetic head to record and reproduce data on a disk to a predetermined position on the disk, comprising:

a coil;

a pivoting arm on the base plate of the hard disk drive; and

magnets normally above and below a part of an area of the coil having an effective portion during operation of the suspended actuator,

wherein the coil, including the area of the coil having the effective portion running perpendicular to a pivoting direction and an area of the coil having a non-effective portion running parallel to the pivoting direction, carrying current in two directions and coupled to the pivoting arm by an outer mold encompassing an outer circumference of the coil,

an inner mold inside the coil, and

a connection mold, connecting the outer and inner molds, at a surface of the area of the coil having the non-effective portion and not at a surface of the area of the coil having the effective portion,

wherein the connection mold is only formed on the outer circumference of the coil on a distal end relative to a pivot hole of the arm.

16. (CURRENTLY AMENDED) A hard disk drive, having a base plate, to reproduce data stored in a disk or record data on a disk by using a magnetic head, the hard disk drive comprising:

a coil;

an actuator including a suspended pivoting arm on the base plate of the hard disk drive supporting a slider on which the magnetic head is mounted; and

magnets normally above and below a part of an area of the coil having an effective portion during operation of the suspended actuator,

wherein the coil, including the area of the coil having the effective portion running perpendicular to a pivoting direction and an area of the coil having a non-effective portion running parallel to the pivoting direction, carrying current in two directions and coupled to the pivoting arm by an outer mold encompassing an outer circumference of the coil,

an inner mold inside the coil, and

a connection mold, connecting the outer and inner molds, at a surface of the area of the coil having the non-effective portion and not at a surface of the area of the coil having the effective portion,

wherein the connection mold is only formed on the outer circumference of the coil on a distal end relative to a pivot hole of the arm.

17. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 16, wherein the connection mold is at an entire surface of the area of the coil having the non-effective portion.

18. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 16, wherein the connection mold is formed in a middle portion along a lengthwise direction of the area of the coil having the non-effective portion.

19. (PREVIOUSLY PRESENTED) The actuator as claimed in claim 16, wherein the connection mold is formed at at least two positions along a lengthwise direction of the area of the coil having the non-effective portion.

20. (CURRENTLY AMENDED) A hard disk drive, having a base plate, to reproduce data stored in a disk or record data on a disk by using a magnetic head, the hard disk drive comprising:

a coil;

an actuator including a suspended pivoting arm on the base plate of the hard disk drive supporting a slider on which the magnetic head is mounted; and

magnets normally above and below a part of an area of the coil having an effective portion during operation of the suspended actuator,

wherein the coil, including the area of the coil having the effective portion and an area of the coil having a non-effective portion outside of the area of the coil having the effective portion and coupled to the pivoting arm by an outer mold encompassing an outer circumference of the coil,

an inner mold inside the coil, and
a connection mold, connecting the outer and inner molds, at a surface of the area of the coil having the non-effective portion and not at a surface of the area of the coil having the effective portion,
wherein the connection mold is only formed on the outer circumference of the coil on a distal end relative to a pivot hole of the arm.

21. (CURRENTLY AMENDED) A subassembly of a hard disk drive, comprising:
a voice coil motor including a coil that has an upper and lower surface with an area of the coil having a non-effective portion;
a set of magnets arranged to be separated a predetermined distance from the coil mounted on a pivoting arm,
wherein an area between the magnets is an area of the coil having an effective portion and an area outside of the magnets is the area of the coil having the non-effective portion; and
an inner mold is formed inside said coil;
an outer mold is formed on an outer circumference of said coil on a distal end relative to a pivot hole of the arm; and
a connection mold connecting said outer mold and said inner mold wherein the connection mold is formed both on said upper and said lower surface of the area of the coil having the non-effective portion and not on the area of the coil having the effective portion.

22. (CURRENTLY AMENDED) An actuator assembly of a hard disk drive, comprising:
an arm, comprising:
a voice coil;
magnets positioned above and below a part of an area of the voice coil having an effective portion and an area outside of the magnets is an area of the voice coil having a non-effective portion;
an outer mold holding the voice coil on an outside;
an inner mold holding the voice coil on an inside; and
a connection mold connecting the inner mold and the outer mold across the voice coil and is formed on at least part of a surface of the area of the voice coil having the non-effective portion and not on the area of the voice coil having the effective portion,
wherein the connection mold is only formed on an outer circumference of the voice coil

on a distal end relative to a pivot hole of the arm.

23. (PREVIOUSLY PRESENTED) An actuator assembly as claimed in claim 22, wherein the arm has a pivot, the voice coil has a side away from the pivot and the connection mold is located on the side away from the pivot.